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Hawkesbury, ON  
K6A 1K7  
Canada

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4.5NR-24

Job Sheet 189401



Part No: 4.5NR-24

Job Qty: 20 pcs

Part Name: Bumper2



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/23/19

Job Tracking No:

Due Date: 2/8/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG 4.5NR-24 Rev.1A IPP Rev. A 19.01.23 New issue DP Verify DD

Ship Via:

## Bill of Materials

## Job Routing

| Op No | Operation                   | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off   |
|-------|-----------------------------|--------|------------|----------|-----------|---------|-----------------------|-----------|------------|
|       |                             |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |            |
| 100   | Small Fab - 1               | 20 pcs | 2/8/19     |          | 0.00      | 2.00    | Small Fab - 1         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 2         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 3         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 4         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 5         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 6         |           |            |
|       |                             |        |            |          |           |         | Small Fab - 7         |           | Michel     |
| 120   | QC 5                        | 20 pcs | 2/8/19     |          | 0.00      | 0.00    | QC 5 - 10             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 12             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 17             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 18             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 19             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 22             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 24             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 3              |           | DAS        |
|       |                             |        |            |          |           |         | QC 5 - 38             |           | 38         |
|       |                             |        |            |          |           |         | QC 5 - 42             |           | 9-89       |
|       |                             |        |            |          |           |         | QC 5 - 43             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 49             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 51             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 58             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 68             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 9              |           |            |
|       |                             |        |            |          |           |         | QC 5 - 50             |           |            |
|       |                             |        |            |          |           |         | QC 5 - 30             |           |            |
| 130   | Packaging 3-1 - Stock - B4B | 20 pcs | 2/8/19     |          | 0.00      | 0.00    | Packaging 3 - 1 - B4B |           |            |
|       |                             |        |            |          |           |         | Packaging 3 - 2 - B4B |           |            |
|       |                             |        |            |          |           |         | Packaging 3 - 3 - B4B |           |            |
|       |                             |        |            |          |           |         | Packaging 3 - 4 - B4B |           |            |
|       |                             |        |            |          |           |         | Packaging 3 - 5 - B4B |           | DAS        |
|       |                             |        |            |          |           |         | Packaging 3 - 6 - B4B |           | 28<br>9-89 |

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|     |            |        |        |           |                        |  |
|-----|------------|--------|--------|-----------|------------------------|--|
|     |            |        |        |           | Packaging 3 - 7 - B4B  |  |
|     |            |        |        |           | Packaging 3 - 8 - B4B  |  |
|     |            |        |        |           | Packaging 3 - 9 - B4B  |  |
|     |            |        |        |           | Packaging 3 - 10 - B4B |  |
|     |            |        |        |           | Packaging 3 - 11 - B4B |  |
|     |            |        |        |           | Packaging 3 - 12 - B4B |  |
|     |            |        |        |           | Packaging 3 - 13 - B4B |  |
|     |            |        |        |           | Packaging 3 - 14 - B4B |  |
|     |            |        |        |           | Packaging 3 - 15 - B4B |  |
|     |            |        |        |           | Packaging 3 - 16 - B4B |  |
|     |            |        |        |           | Packaging 3 - 17 - B4B |  |
|     |            |        |        |           | Packaging 3 - 18 - B4B |  |
|     |            |        |        |           | Packaging 3 - 19 - B4B |  |
|     |            |        |        |           | Packaging 3 - 20 - B4B |  |
|     |            |        |        |           | Packaging 3 - 21 - B4B |  |
|     |            |        |        |           | Packaging 3 - 22 - B4B |  |
|     |            |        |        |           | Packaging 3 - 23 - B4B |  |
|     |            |        |        |           | Packaging 3 - 24 - B4B |  |
|     |            |        |        |           | Packaging 3 - 25 - B4B |  |
|     |            |        |        |           | Packaging 3 - 26 - B4B |  |
|     |            |        |        |           | Packaging 3 - 27 - B4B |  |
|     |            |        |        |           | Packaging 3 - 28 - B4B |  |
|     |            |        |        |           | Packaging 3 - 29 - B4B |  |
|     |            |        |        |           | Packaging 3 - 30 - B4B |  |
|     |            |        |        |           | Packaging 3 - 31 - B4B |  |
|     |            |        |        |           | Packaging 3 - 32 - B4B |  |
|     |            |        |        |           | Packaging 3 - 33 - B4B |  |
|     |            |        |        |           | Packaging 3 - 34 - B4B |  |
|     |            |        |        |           | Packaging 3 - 35 - B4B |  |
|     |            |        |        |           | Packaging 3 - 36 - B4B |  |
| 140 | QC 21 - SA | 20 pcs | 2/8/19 | 0.00 0.00 | QC 21 - SA - 21        |  |
|     |            |        |        |           | QC 21 - SA - 70        |  |

Part Op 100 - Small Fab - 1- CUT TO SIZE AND CHAMFER AS PER DWG \*\*\*Hole in center no longer required see engineering  
 Descriptions: for sign off\*\*\*

120 - QC5- Inspect part completeness to step on W/O

130 - Identify as per dwg & Stock Location: \_\_\_\_\_

140 - QC21- Final Inspection - Work Order Release

### Job BOM

| Part / Item | Component Name                         | Quantity            | Operation         | Container |
|-------------|----------------------------------------|---------------------|-------------------|-----------|
| 8695K717    | Polyurethane Rod 1-1/4 DIA. 80A (Hard) | 2.6600 ft (.133 ea) | 100-Small Fab - 1 | 5048588   |

### Job Allocations

| Operation         | Component Part | Required | Inventory | Allocated |
|-------------------|----------------|----------|-----------|-----------|
| 100-Small Fab - 1 | 8695K717       | 3        | 3         | 0         |

### Part Specifications

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und.

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Container No: S150167



Part: 4.5NR-24

Job No: 189401

Serial No/Batch: S150167

Revision: 1A

Inspector:

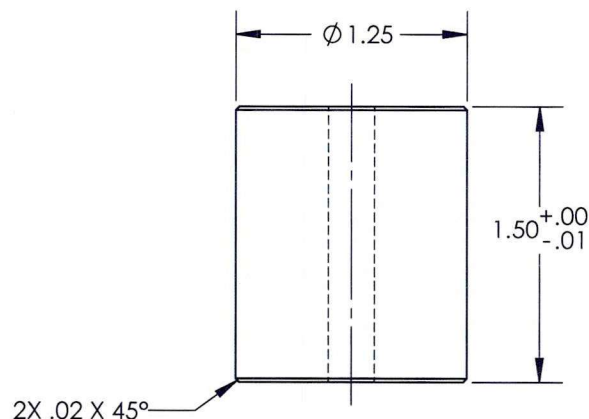
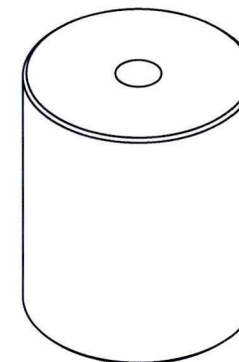
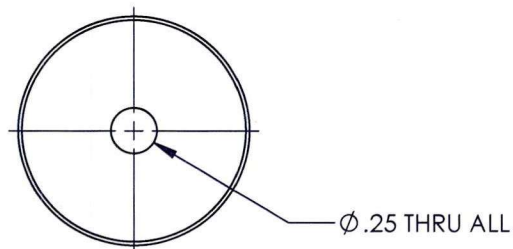
Exp Date:

Instructions:

Date: 02/01/19

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| REVISIONS |         |                                                                |           |         |          |
|-----------|---------|----------------------------------------------------------------|-----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                                    | DATE      | INITIAL | APPROVED |
| 1         |         | AS DRAWN BY CANAM.                                             | 7/16/2013 | JAG     |          |
| 1A        | 14-0095 | CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE. | 7/28/2014 | DPD     | RW       |



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 189401

*M-5*  
*1901-23*

NOTE:  
BAG & LABEL WITH BATCH NUMBER.

|                                                        |                        |
|--------------------------------------------------------|------------------------|
| <b>DART<br/>AEROSPACE</b>                              |                        |
| TITLE<br><b>LOAD STOP FRONT BUMPER</b>                 |                        |
| DWG NO.<br><b>4.5NR-24</b>                             | REV<br><b>1A</b>       |
| MAT'L URETHANE                                         | DRAWN BY: CANAM        |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES | APPROVED <i>D Weil</i> |
| .XXX ± .005                                            | HEAT                   |
| .XX ± .01                                              | TREAT                  |
| .X ± .1                                                | FINISH                 |
| ANGLES ± 5°                                            | SPEC                   |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R        | USED ON MODEL          |
| 2. DIMENSIONAL LIMITS APPLY AFTER<br>PLATING           |                        |
| SCALE 1:1                                              | DATE 10/21/1997        |
| SHEET 1 OF 1                                           |                        |

| ASSY QTY | ASSY QTY | B/O | Part #   | UNIT QTY | Description            | Material | B/O INFORMATION OR SPECIFICATIONS |
|----------|----------|-----|----------|----------|------------------------|----------|-----------------------------------|
|          |          |     | 4.5NR-24 | 1        | LOAD STOP FRONT BUMPER | URETHANE | Ø1-1/4 X 1-1/2                    |



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |